Internationalisation of the Curriculum and Human Resources Development

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Dr Conor O’Carroll
Steering Group for Human Resources and Mobility (SGHRM 2012-2017)
SciPol
SGHRM and Policy Background

- ERAMORE / EURAXESS (since 2004)
  - EU wide network of mobility centers for researchers plus support in areas: Jobs, Links, Services and Rights
- Scientific Visa (since 2007)
  - Recommendations for fast track visa procedure and specific residence permit for third country researchers
- European Partnership for Researchers (2008)
  - Open recruitment and portability of grants
  - Social security and supplementary pension for mobile researchers
  - Attractive employment and working conditions
  - Improve training, skills and experience
SGHRM Policy Background

- **Innovation Union (2010)**
  - Commitments 1, 4 and 30 are all related researchers careers: to train young people to become researchers, to offer international competitive research careers, and attract the best researchers from abroad

- **Human Resources Strategy for Researchers (since 2010)**

- **European Framework for Researchers Careers (2011)**
  1. *R1 First Stage Researcher (up to the point of PhD)*
  2. *R2 Recognized Researcher (PhD holders or equivalent who are not yet fully independent)*
  3. *R3 Established Researcher (researchers who have developed a level of independence.)*
  4. *R4 Leading Researcher (researchers leading their research area or field)*

- **Innovative Doctoral Training Principles (2011)**

- **ERA Memorandum of Understanding (2012)** - A reinforced ERA Partnership for Excellence and Growth that defined five priorities
PhD - Interface between Education and Research

- EHEA
- Bologna Third Cycle
- R1 First Stage Researcher

- ERA
CURRICULUM

Formal

Informal

Hidden

Prof. Betty Leask, La Trobe University, Australia
The *formal curriculum* is essentially the knowledge base of the curriculum, the content as described in the syllabus as well as the planned schedule of experiences and activities that students must undertake as part of their course or degree program.

Prof. Betty Leask, La Trobe University, Australia
The informal curriculum is the various support services and additional activities and options organised by the university and affiliated associations, clubs and societies. The activities and services provided are optional and not assessed, although they may support assessed learning within the formal curriculum. Examples are peer mentoring programs, peer assisted study sessions and social activities organised by clubs and societies.

Prof. Betty Leask, La Trobe University, Australia
The hidden curriculum is the various unintended, implicit and hidden messages communicated in both the formal and informal curriculum – messages we may not even be aware we are sending.

Prof. Betty Leask, La Trobe University, Australia
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EUA Salzburg Principles (2005)

2016

- Institutional Structures
- Creating space for dialogue
- Building Research Capacity
- Nurturing Talent
- Developing an ethos of Research Integrity
- The Digital Challenge
- The Global Vision
- Engaging with other Stakeholders
Seven Principles

- Research Excellence
- Attractive Institutional Environment
- Triple-i mobility = international, interdisciplinary, intersectoral
- Transferable Skills Training
- Quality Assurance
In order to increase the practice of Open Science, it is critical that researchers, who are the key agents of change towards Open Science activity need to be encouraged and incentivized.
For Open Science to become a reality, researchers need appropriate discipline-dependent skills training and professional development at all stages of their research careers.
A large number of research and innovation stakeholders are currently active in the provision of Open Science skills in Europe

**BUT**

- need greater coordination across these stakeholders is recommended to combat the issue of fragmentation and possible duplication

- The European Commission can play a role in the standardization of a set of recognized skills, competences and supports

Recommendation 2: Guidelines to Implement Open Science

- At European level, the existing guidelines on research careers and training should be adapted to integrate Open Science, specifically:
  - A revised European Framework for Researcher Careers that identifies the specific Open Science skills for researchers at all levels should be implemented.
  - The HRS4R should integrate Open Science skills as part of researcher career development.
  - A revised version of the Innovative Doctoral Training Principles that integrates Open Science should be adopted.
  - Create a European Qualifications Matrix for Open Science

- Greater coordination across stakeholders providing Open Science Skills training is recommended to combat the issue of fragmentation and possible duplication of such training in Europe.
Recommendation 4: Training Researchers for Open Science

• To facilitate this, institutions should offer and promote both traditional and/or online career-level appropriate Open Science training courses for researchers:

• These courses should be tailored for and delivered to researchers at all career stages (from R1 to R4).

• All Open Science skills courses should have career level appropriate accreditation and could also be modularized.

• In the case of R1 and R2 researchers, it should be mandatory for universities and research organizations to offer these as part of their training.

• Researchers need to acquire and improve the following skills: **Open Access publishing** and utilizing Open Access repositories; **Open Data** and particularly data management (analysis, use, and reuse of data), metadata, and data dissemination (sharing and granting access to data); **professional research conduct** which include research management skills, **research integrity and ethics skills**, and IPR and **legal skills**; **Citizen Science**, where researchers interact with the general public to enhance the impact of science, research and innovation in society.
OPEN IMPACT

The European Union, where governments have emphasized collaboration and mobility, has retained citation strength in the face of competition.

European Research Area launches; gradual reinforcement of EU funding programmes to promote integration.

>2% GDP spent on R&D

<1% GDP spent on R&D

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EU Joint Research Centre Tools for Innovation Monitoring, based on Scopus data release August 2016
OPEN COUNTRIES HAVE IMPACT

Nations with more scientists coming in and going out produce papers that are more highly cited (all figures are for 2013).

Singapore: 37% of papers internationally co-authored

South Korea: 15% of papers internationally co-authored

Impact*  

Openness†

*Based on field-weighted citations; †Determined by numbers of scientists emigrating from, immigrating to and returning to a country, plus international co-authorships; ‡Publications are assigned to a country according to the proportion of co-authors based there.
Thank you!

conor.ocarroll@scipol.ie
SciPol, Dublin, Ireland